

# Dropped Object Incidents on Chevron operated assets



**January 2010**

There were three RIDDOR-reportable Dropped Objects on Chevron operated assets in January 2010:

No personnel were injured as a result of any of these incidents

- On 19<sup>th</sup> January, an electrical equipment enclosure weighing 7.5kg fell approx 8-10 metres while lifting a waste skip.
- On 25<sup>th</sup> January, a louver on a diesel-powered jetting unit, weighing 100kg, fell approx 25 metres from the platform to the sea while the unit was being lifted.
- On 30<sup>th</sup> January, a metal plate, weighing 12.5kg fell approx 4 metres from inside a cuttings transfer chute, landing on the deck.

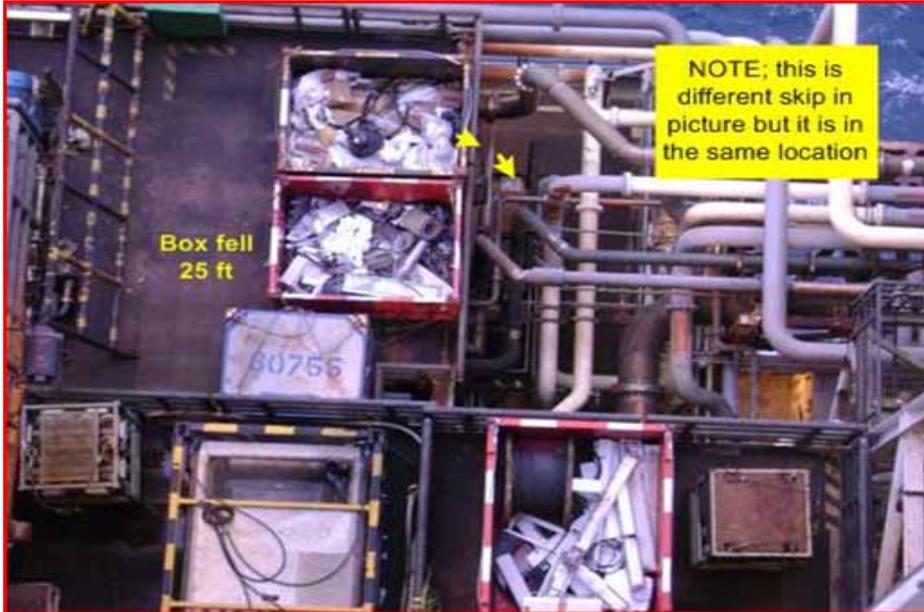
# Electrical Equipment Enclosure fell from skip



Whilst preparing to lift a general waste skip away from lay down area, the deck crew attached the crane hook to the lifting assembly of the skip. The lifting assembly was buried underneath general waste. As the assembly was lifted several items of waste material fell out off the skip including an electrical equipment enclosure, weighing approx 7.5kg This item fell over the handrail and down to the inboard level directly below (approx 8-10m). No personnel were in the area.



# Electrical Equipment Enclosure fell from skip (Photos)



Aerial view of skip location showing where object dropped to

Other material dislodged from skip during lift



# Electrical Equipment Enclosure fell from skip



## Root Causes

- The design of the lay down area did not allow for clear and safe access to monitor lifting legs while skip was being used (location of the skip was too close to the edge of the deck).
- Failure to comply with requirements of procedure which requires the load to be checked to ensure there is no potential for parts of the load to fall prior to undertaking the lifting operation (accepted practice was to use a controlled lift to extricate legs of lifting assembly from debris).
- All personnel involved in this lift should have been sufficiently trained and competent to recognise the hazards that were present and to control them according to procedure. The Banks man was not positioned such that he had an unobstructed view of all edges of the skip once debris began to rise when lifting assembly was tensioned.
- Stop Work Authority was not used by any member of the deck crew.

# Electrical Equipment Enclosure fell from skip



## Actions

- Reminder to all platform deck crew to ensure they are in full view at all times of all skips when trying to clear lifting assembly leg obstructions. Also deck crew to ensure skip openings are left completely clear of lifting leg assemblies when landed, and periodic monitoring program of skips during use.
- Skip location to be reviewed to allow better access to view contents and also to provide a catchment area if items are dislodged
- Increased awareness of all platform personnel about the use of skips and hazards around segregation, lifting assembly legs, netting use and overfilling (through TBT and OIM Forums).
- Wire mesh to be installed to bumper bar areas to provide improved dropped object protection.

# Electrical Equipment Enclosure fell from skip



## Actions (cont).

- All members of deck crew to be asked to sign acknowledgement that they have read and understood requirements of the procedure and that they are aware of the requirements placed on them by this procedure.
- Review Lifting Plan for lifts of waste skips to ensure it adequately identifies and addresses specific hazards associated with loose items contained within skip.
- Increase the awareness of Stop Work Authority, as this opportunity presented itself but was not taken.

# Jetting Unit Radiator Louvre fell to Sea



- During lifting operations on a Jetting Unit from platform pipe deck to level 1 lay down, it was observed from a distance that there seemed to be movement from a louver on end of unit.
- It was decided to land unit as requested at Level 1 lay down as nightshift required the use of unit. As it was now at end of shift and quite dark an inspection would be carried out next morning.
- Next morning, unit was raised to turn 180° as louver was on outboard side of lay down landing and unable to be fully inspected. It was at this time that the louver detached from unit and fell to sea. Unit was raised to pipe deck and deck crew reported to Supervisor who in turn contacted the HES Advisor.

# View of Container with louvred end

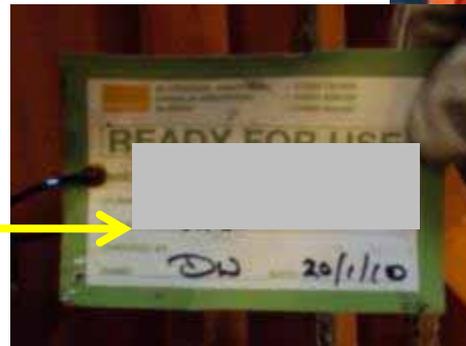


Unit on platform, following detachment of louver end plate

Unit in yard showing example of louver end plate that fell to sea



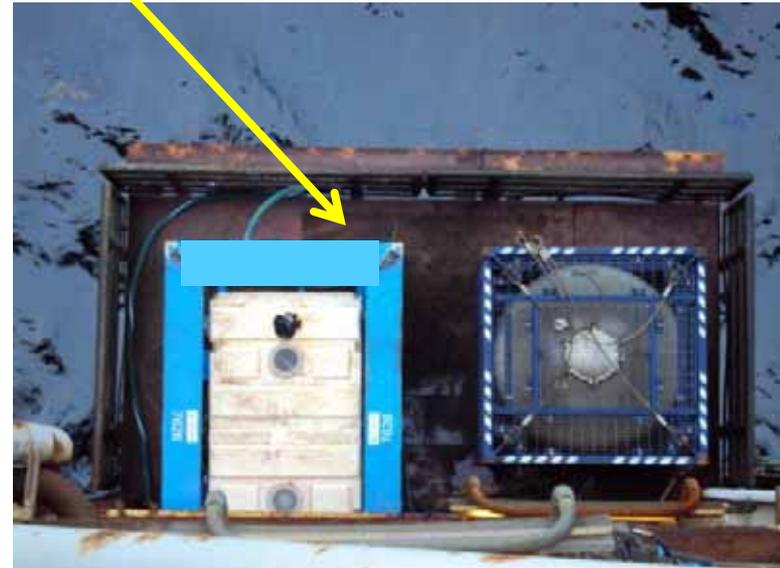
Container inspection ticket



# View of lay down area



View of lay down area where unit was being placed following lift from pipe deck  
N.B. This is a blind lift



Close up view of handrail where container was landed (no sign of marking)

# Sheared and damaged bolts



# Jetting Unit Radiator Louvre fell to Sea



## Root Causes

- Incident occurred as a result of retaining bolts shearing and the fact that there was no secondary securing device in place. Possible contributing factors include incomplete QA inspection prior to shipping and inadequate access to unit offshore to allow for pre lift checks. Highly likely that unit contacted other unit on vessel (blue paint observed on unit upon inspection).

## Actions

- Communicate to all QA inspectors of any equipment being mobilised offshore which requires QA, that the relevant inspection sheets are to be fully completed and signed to ensure equipment integrity is satisfactory for release to offshore operations. In addition, the QA inspectors should be asked to inspect for secondary securing devices for externally mounted equipment.



## Actions (cont)

- Deck co-ordinator to communicate to all crews that if any anomaly/damage is observed during lift that the load is to be landed as safely and quickly as possible with damaged area facing inboard to allow for inspection.
- Integrity team leader to communicate with contract owner of Jetting unit that equipment mobilised to Chevron installations must have secondary retaining device fitted to externally mounted parts of temporary equipment.
- Note: As a result of this incident the unit provider has changed the design of these units. the louver is flush fitted.

# Metal Plate fell from Cuttings Chute



- A workforce member reported a dropped object internal to drilling cuttings chute hitting the deck close to where he was standing.
- On examination the object was a long section of curved metal plate which acted as a deflector within the chute. Only one of its two securing bolts could be found, and this had a missing nut. Although still held within the chute the metal plate protruded below the cuttings chute resting on the deck and had the potential to cause injury.
- Deflector plate was some 2.5 metres in length and weighing approximately 12.5 Kg.

# Metal Plate fell from Cuttings Chute (Photos)



Cuttings chute in place  
(Dropped object removed)



Position of  
witness when  
incident  
occurred

Position of  
dropped  
object held  
within chute

# Securing mechanism of deflector plate



Deflector  
plate secured  
by 2 bolts

Single bolt and  
nut found on  
deck directly  
below cuttings  
chute

# Metal Plate fell from Cuttings Chute



## Root Causes

- MOC and temporary equipment procedures not followed when equipment installed initially so no inspection schedule set up for equipment. Following that, there was a modification made to the chute that did not have a securing device that was fit for purpose. The securing device of this additional modification failed and resulted in the dropped object.
- Equipment was not in use and there was no requirement for the chute to be in place.

## Actions

- Remove rest of cuttings chute.
- Drilling superintendent to ensure service partner reviews method of transferring cutting to skips when blower is unavailable and informs OIM of changes and ensure new design is captured in an inspection schedule.

# Metal Plate fell from Cuttings Chute



## Actions (cont)

- Drilling superintendent to share dropped object from drilling chute incident with chute provider and ensure the vendor reviews their procedures to incorporate lessons learned from this incident.
- Senior Tool Pusher to reiterate to all crews that home made devices are unacceptable and that all procedures relating to temporary equipment and or Management of Change (MOC) should be followed. This ensures that equipment will be included in an inspection regime.
- Drill site Manager to ensure that rig down procedures include instructions for all temporary drilling equipment to be rigged down at end of drilling campaign.